

group, or a combination thereof. In Example 2, it is suggested that a fluorotelomer may be used as the additive; however, this telomer dispersion is not miscible with the polypropylene. Column 12 lines 55-59 of Rousseau et al. state that the fluorinated additives may be bloomed to the surface of the fibers, which is a clear indication that the fluorinated compounds suggested by Rousseau et al are not miscible with the nonconductive thermoplastic polymer. Rousseau et al. fails to teach the addition of a telomer which is miscible with the thermoplastic polymer, as required by the present claims.

To remedy this deficiency, the Examiner relies on Bates et al. to show the creation of miscible polyolefin blends used to form films, finding that Bates et al. teaches adding applicant's claimed telomers "as functional end groups". The Examiner surmises that such a combination would have been obvious to a person having ordinary skill in the art motivated by the desire to functionalize Rousseau's fibers."

First, it is pointed out that the Examiner's statement of the rejection is unclear and is subject to more than one possible interpretation. In the Office Action dated July 3, 2003, after acknowledging that Rousseau et al. does not teach the Applicant's claimed telomer, the Examiner states:

"Bates is concerned with the creation of miscible polyolefin blends used to form films. Bates teaches adding applicant's claimed telomers as functional end groups (col, 22, lines 38-65). It would have been obvious to a person having ordinary skill in the art to add the functional end groups of Bates to the polymer composition of Rousseau. Such a combination would have been motivated by the desire to functionalize Rousseau's fibers".

It is unclear to the Applicant whether the rejection is based on the position that it would have been obvious to 1) add a telomer of Bates et al. to the composition of Rousseau et al.; 2) to functionalize the end groups of the polypropylene of Rousseau et al. with the functional groups of the telomers of Bates et al.; or 3) to functionalize the additives of Rousseau et al. with the functional groups of the telomers of Bates et al, motivated by the desire to functionalize the fibers of Rousseau et al.

In the Final Rejection dated December 3, 2002, the Examiner has further modified the rejection by stating "[i]t is the Examiner's position that the person of ordinary skill in the art would have added the Bates et al. telomer to the composition of Rousseau et al. with the reasonable expectation of forming a miscible blend". Clearly, the Examiner has changed his reasoning on the motivation for combining the references, thereby stating a new ground of rejection. Therefore, the finality of the Office Action dated December 3, 2002 should be

withdrawn for one or both of the following two reasons. First, the statement of the rejection in the July 3, 2002 Office Action, which is incorporated into the Final Rejection, is unclear. Second, the Final Rejection changes the grounds of rejection. The Examiner has shifted the motivation to one in which the motivation is to prepare a miscible blend of the polymer, the telomer and the additives of Rousseau et al. As is stated in MPEP 706.07, before a final rejection is in order, a clear issue should be developed between the Examiner and the Applicant. Given the above, a clear issue has not been developed since the Examiner has changed the motivation for the rejection, and/or the Examiner has not clearly stated the rejection. It is further the Applicant's position that no amendment necessitated the new ground of rejection that would support making it final

In any event, one skilled in the art would not combine the teachings of Bates et al. with the teaching of Rousseau et al. as suggested by the Examiner. Specifically, one skilled in the art would not look to the teaching of Bates et al. to add a telomer of Bates et al. to the composition of Rousseau et al.

As is stated in column 1, lines 54-57 and column 11 lines 15-19 of Rousseau et al., resins used in preparing electret media are generally required to be free of materials which increase electrical conductivity or otherwise interfere with the ability of the fiber to accept and hold an electrostatic charge. It was generally known to those skilled in the electret art, at the time the invention, that the presence of polar groups on the surface of an electret article, reduces the ability of the electret material to hold a charge. See the attached article "Studies of Polymer Electrets. III Charge Decay Behavior in Polar Polymer Homoelectrets" Journal of Applied Polymer Science (1982) 27(6) 1967-75.

Bates et al. clearly teaches in column 23, lines 18-21, that the addition of the telomer to a polyolefin "provide a primary polyolefin, particularly polypropylene, with increased surface polarity for increased paintability and bondability and increased adhesion to glass". It follows that the teachings of Bates et al. suggest that if the telomer of Bates is added to the polyolefin, the resulting blend will be more polar than the polyolefin. Increasing the polarity of a polymer composition used to prepare an electret material will have a negative effect on the ability of the material to hold electrostatic charges. As is stated above, Rousseau et al. clearly teach that the electret material should be substantially free of any material which could interfere with the ability of the electret material to hold an electrostatic charge. Therefore, one skilled in the art would not have been motivated to add the telomer of Bates et al. to the composition of Rousseau et al., or to replace the additives of Rousseau et al with the telomer of Bates et al., since one skilled in

the art would expect that the telomer, given its ability to increase the polarity of a polyolefin, would adversely affect the ability of the polyolefin to hold an electrostatic charge. Rousseau et al. clearly teaches away from adding such a component to the composition.

The present invention is based on the discovery that the addition of the telomer actually imparts a more stable charge to the porous polymer substrate, which is an unexpected result, especially in light of the teaching of Bates et al., which suggest increased surface polarity. Further, as is shown in the Examples of the specification, the addition of the telomer improves the initial air filtration efficiency.

In the Final Rejection, the Examiner argues that the claims do not state with what the telomer is miscible. Applicant points out that the claims must be read in light of the specification. It is clear that the telomer is miscible with the thermoplastic polymer. Further, the claims, as currently written, claim a porous polymeric material comprising a first thermoplastic polymer and a miscible thermoplastic telomer. One skilled in the art reading this claim instantly realizes that the telomer and the thermoplastic polymer are miscible with one another. If the Examiner has any suggestions for amending the claims in this regard, he is respectfully requested to call the undersigned at the number listed below to discuss this issue. Applicant is willing to appropriately amend the claims to remove any concerns the Examiner may have with respect to the use of the term "miscible".

In the new statement of the rejection, the Examiner states that one skilled in the art would have found it obvious to add the telomer of Bates et al. to the composition to Rousseau et al. to form a miscible blend. The basis for the Examiner's new statement of the rejection is that Bates et al. teaches the formation of a miscible blend of a nonconductive thermoplastic, a triazine additive and the telomer in Examples. Applicant points out that the triazine compounds of Rousseau have an additional nitrogen atom, other than the ones in the triazine ring. In contrast, the antioxidants of Bates et al. do not have this additional nitrogen atom. Therefore, it is not clear that the mixture suggest by the Examiner would be a miscible blend suggested by the Examiner.

Finally, the Examiner in the Final Rejection dismisses the Applicant's previous arguments regarding the teaching of Bates et al., stating that the increase in hydrophilicity and antistatic properties was from an embodiment of Bates et al. which was not relied upon in the rejection. However, the Examiner never addresses the issues of increased polarity, paintability, bondability and adhesion to glass. These properties are all due to the increase in the polarity and therefore, hydrophilicity, of the surface of the blend. As is well known in the art, the surface

chemistry of the substrate plays a critical role in determining the ability of a surface to be bonded, coated or painted with an adherend. Polar surfaces are easier to coat than nonpolar surfaces. See "Industrial Adhesion Problems", edited by D.M Brewis et al., John Wiley & Sons, New York, New York, 1985 (pp. 5, and 185-188).

In any event, Rousseau et al. teach away from adding the Applicant's claimed telomers, for the reasons stated above. Therefore, one skilled in the art would have not been motivated to add the telomer to the composition of Rousseau et al.

This rejection is untenable and should be withdrawn.

Claims 14-15 and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 6,002,017 to Rousseau et al. in view of U.S. Pat. No. 5,955,546 to Bates et al. and U.S. Pat. No. 5,707,735 to Midkiff et al. Applicant respectfully traverses this rejection.

Midkiff et al. fails to remedy the lack of motivation for adding the telomer to the composition of Rousseau et al. Therefore, the combination of Midkiff et al. with Rousseau et al and Bates et al., fails to suggest the present invention, for the reasons stated above.

Please charge any prosecutorial fees which are due to Kimberly-Clark Worldwide, Inc. deposit account number 11-0875.

The undersigned may be reached at: 770-587-7204

Respectfully submitted,

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CERTIFICATE OF MAILING

I, Ralph H. Dean, Jr, hereby certify that on February 26, 2003 this document is being deposited with the United States Postal Service as first-class mail, postage prepaid, in an envelope addressed to: Assistant Commissioner of Patents, Washington, D.C. 20231.

By: 

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